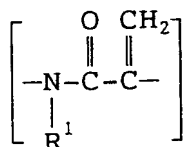


Patent Claims

1. Dental material containing an amide of the general formula  $BX_n$  in which

B stands for a hydrocarbon radical with 1 to 50 carbon atoms which can contain one or more of the groups O, S, NH, CO-NH, O-CO-NH and/or NH-CO-NH, and which is substituted n times with the group X,

X stands for the group



which is bound to the radical B via the nitrogen atom or via C-2, the bond site not connected to B carrying a radical  $R^2$ ,

$R^1$  is hydrogen, an alkyl group with 1 to 20 carbon atoms or a phenyl radical, two or more radicals X being able to share a radical  $R^1$  and  $R^1$  also being able to be a constituent of the radical B,

$R^2$  is hydrogen, an alkyl group with 1 to 20 carbon atoms or a phenyl radical, and

n is a number from 2 to 5.

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2. Dental material according to claim 1, characterized in that

B stands for a saturated, linear or branched aliphatic group with 2 to 15 carbon atoms which can contain one or two of the groups S, NH, O, NH-CO-O or O-CO-NH,

for a cycloaliphatic group with 6 or 15 carbon atoms,

an aromatic or non-aromatic heterocyclic radical with 3 to 10 carbon atoms and 1 to 3 heteroatoms,

an aromatic radical with 6 to 12 carbon atoms or a combination of these radicals,

R<sup>1</sup> is hydrogen or a C<sub>1</sub> to C<sub>5</sub> alkyl group,

R<sup>2</sup> is hydrogen or a C<sub>1</sub> to C<sub>5</sub> alkyl group,

n is 2 or 3.

506A<sub>2</sub> 3.  
Dental material according to claim 1 or 2, characterized in that B carries, in addition to the group X, one or more substituents which are chosen from Cl, Br, OH and/or COOH.

4. Dental material according to one of claims 1 to 3, characterized in that R<sup>1</sup> and/or R<sup>2</sup> are substituted once or several times, the substituent or substituents being chosen from Cl, Br, OH and/or COOH.

5. Dental material according to one of claims 1 to 4, characterized in that it contains a polymerization initiator and optionally a polymerizable binder.

END A<sub>2</sub>

6. Dental material according to claim 5, characterized in that it contains at least one acidic polymerizable monomer.

7. Dental material according to claim 5 or 6, characterized in that it contains at least one ethylenically unsaturated polymerizable monomer.

SUB A<sub>3</sub>

8. Dental material according to claim 7, characterized in that it contains a polyfunctional polymerizable monomer.

9. Dental material according to one of claims 5 to 8, characterized in that the quantity of the amide  $BX_n$  relative to the sum of the masses of the amide  $BX_n$  and other polymerizable monomers is more than 3 wt.-%, preferably more than 10 wt.-%.

SUB A<sub>4</sub>

10. Dental material according to one of claims 5 to 9, characterized in that it contains an initiator for the photopolymerization.

11. Dental material according to one of claims 1 to 10, characterized in that it contains filler.

12. Dental material according to one of claims 1 to 11, characterized in that it contains at least 1 wt.-% preferably at least 5 wt.-% of the amide  $BX_n$  relative to the overall mass of the dental material.

13. Dental material according to one of claims 1 to 12, characterized in that it contains

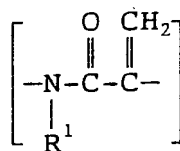
- (a) 1 to 90 wt.-% of the amide  $BX_n$ ,
- (b) 0.1 to 5.0 wt.-% polymerization initiator,
- (c) 0 to 70 wt.-% polymerizable monomer (non-acidic),
- (d) 0 to 70 wt.-% acidic polymerizable monomer,
- (e) 0 to 70 wt.-% filler,
- (f) 0 to 70 wt.-% solvent

in each case relative to the overall mass of the dental material.

14. Use of an amide of the general formula  $BX_n$  in which

B stands for a hydrocarbon radical with 1 to 50 carbon atoms which can contain one or more of the groups O, S, NH, CO-NH, O-CO-NH and/or NH-CO-NH, and which is substituted n times by the group X,

X stands for the group



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which is bound to the radical B via the nitrogen atom or via C-2, the bond site not connected to B carrying a radical  $R^2$ ,

$R^1$  is hydrogen, an alkyl group with 1 to 20 carbon atoms or a phenyl radical, two or more radicals X being able to share a radical  $R^1$  and  $R^1$  also being able to be a constituent of the radical B,

$R^2$  is hydrogen, an alkyl group with 1 to 20 carbon atoms or a phenyl radical, and

n is a number from 2 to 5

as dental material or for the preparation of a dental material.

15. Use according to claim 14 as dental adhesive, coating material, filling material or dental cement.